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Each of independent claims 1, 12, 25 and 36 involves ultrasonic inspection planning for a part. Specifically, claim 1 recites a method of using a computer to generate an ultrasonic inspection planning for a part. Claim 12 recites a method for automatically generating an ultrasonic inspection planning for a part. Claim 25 recites a computer-readable medium containing instructions for controlling a computer system to perform a method that generates an ultrasonic inspection planning for a part. Claim 36 recites a system for automatically generating an ultrasonic inspection planning for a part.

In contrast to the present invention, Takashita et al involves a system for performing ultrasonic inspection and does not involve ultrasonic inspection planning. Ultrasonic inspection is a technique of inspecting the surface of an object for defects and is distinguishable from ultrasonic inspection planning, which involves how to carry out ultrasonic inspection. More specifically, an ultrasonic inspection plan is developed for a part design to insure that full and consistent ultrasonic inspections can be carried out (see page 2 of the present specification). Developing such an inspection plan involves determining inspection parameters such as the speed at which the part will be rotated, the surface speed of the part, how fast the transducer will be indexed with respect to the part, pulse repetition rate and scan length. As described on page 4 of the present specification, an inspection planning contains all of the information (e.g., part nomenclature, standard instructions, inspection coverage, inspection zone sketch, inspection sequence, equipment parameters and revision history) needed to meet specification requirements for an ultrasonic inspection. Takashita et al does not involve such planning.

Independent claim 1 recites a method of using a computer to generate an ultrasonic inspection planning for a part that includes the steps of:

- collecting data relating to the ultrasonic inspection planning;
- using the data to calculate inspection parameters; and

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outputting a set of inspection planning based on the calculated parameters.

Takashita et al includes none of these steps. While the system of Takashita et al does collect data, this is "reference data" and "inspection data" obtained by ultrasonic scanning. The system does not collect data relating to ultrasonic inspection planning (e.g., part nomenclature, standard instructions, inspection coverage, inspection zone sketch, inspection sequence, equipment parameters and revision history) as required by claim 1. Takashita et al also does not use the data relating to ultrasonic inspection planning to calculate inspection parameters. Lines 9-21 of column 12 of Takashita et al, referred to by the Examiner, discuss calculating an attenuation factor, but this is calculated with scanning data, not data relating to ultrasonic inspection planning. Lastly, Takashita et al does not disclose the claimed step of outputting a set of inspection planning based on the calculated parameters. Instead, Takashita et al merely discloses outputting the inspection data to a display unit so that an image can be obtained.

The Examiner concedes that Takashita et al does not disclose "a data formatting concept," alleging that Rich does disclose such an approach. However, Rich relates to specification testing, checking and calibration of a network of radiation therapy devices used in the oncology field. Rich does not involve ultrasonic inspection planning or even an ultrasonic inspection system like that disclosed in Takashita et al. Thus, it would not have been obvious to modify Takashita et al with Rich in the manner suggested by the Examiner. Furthermore, the section of Rich pointed out by the Examiner (column 6, line 52 through column 7, line 2) discusses outputting device history records or DHRs. The DHR is completely unrelated to a set of inspection planning that is recited in claim 1. Therefore, even if Takashita et al and Rich were combined in the

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manner suggested by the Examiner, the resulting combination would not render claim 1 unpatentable.

Regarding independent claims 12, 25 and 36, each of these recites a step or means for displaying an input screen for prompting a user to input data relating to an ultrasonic inspection planning for a part, calculating inspection parameters from the data, and formatting the calculated parameters into an inspection plan document.

As discussed above, Takashita et al does not teach or suggest calculating inspection parameters from data relating to an ultrasonic inspection planning or formatting the calculated parameters into an inspection plan document. Furthermore, neither Takashita et al nor Rich disclose displaying an input screen for prompting a user to input data relating to an ultrasonic inspection planning, as required by each of claims 12, 25 and 36.

For the above reasons, it is respectfully submitted that independent claims 1, 12, 25 and 36 are allowable over Takashita et al in view of Rich.

The Examiner has also made the following rejections of the dependent claims:

- Claims 2, 20, 31 and 42 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al in view of Rich and further in view of Bell et al.
- Claims 3, 21, 32 and 43 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al, Rich and Bell et al and further in view of Tanaka et al and Wolstenholme et al.
- Claims 8, 16, 24, 29 and 40 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al in view of Rich and further in view of Ichikawa et al.

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- Claims 4, 9, 17, 22, 33, 30, 41 and 44 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al, Rich, Bell, Tanaka and Wolstenholme et al and further in view of Kao et al.
- Claims 5, 23, 34 and 45 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al, Rich and Bell and further in view of Wilson et al.
- Claims 6, 14, 27 and 38 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al in view of Rich and further in view of Kimball et al.
- Claims 7, 15, 28 and 39 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al in view of Rich and further in view of Nottingham et al and Wilson et al.
- Claims 10, 18, 35 and 46 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al, Rich, Ichikawa et al and Bell et al and further in view of Hsu et al.
- Claims 11, 13, 19, 26 and 37 rejected under 35 U.S.C. § 103(a) as being unpatentable over Takashita et al in view of Rich and further in view of Marti et al.

These grounds of rejection are respectfully traversed. It is respectfully submitted that none of the additional references relied on by the Examiner in rejecting the dependent claims overcome the deficiencies of Takashita et al and Rich with respect to independent claims 1, 12, 25 and 36. Thus, Takashita et al and Rich, even when modified by one or more of the additional references, still fail to render independent claims 1, 12, 25 and 36 unpatentable for the reasons set forth above. Dependent claims 2-11, 13-24, 26-35 and 37-46 are thus also believed to be allowable.

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In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration of the objections and rejections is requested. Allowance of claims 1-46 at an early date is solicited.

Respectfully submitted,

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Date

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